

## CLAIMS

What is claimed is:

- 5 1. A method for automatically dialing a predetermined access digit or string of digits on a telephone network by an automatic dialing device, said automatic dialing device having connectivity to the telephone network, said method comprising the steps of:

receiving a first digit by said automatic dialing device from a telephone network;

decoding a digit value of said first digit;

10 waiting for a predetermined digit interval of time for reception of a subsequently received second digit from said telephone network; and

15 automatically dialing onto said telephone network a predetermined access digit or string of digits if said predetermined digit interval time is elapsed prior to reception of said the second digit, such that said access digit or string of digits is automatically dialed following completion of the first received digit and prior to reception of subsequently received digits.

- 20 2. The method for automatically dialing a predetermined access digit or string of digits on a telephone network by an automatic dialing device as set forth in Claim 1 further comprising the step of measuring the duration of said first digit prior to automatically dialing said access digit or string of digits, and aborting said step of automatically dialing the access digit or string of digits if the measured duration of the first digit exceeds a predetermined maximum value.

3. The method for automatically dialing a predetermined access digit or string of digits on a telephone network by an automatic dialing device as set forth in Claim 1 further comprising the step of providing a parallel electrical connection between said automatic dialing device and a telephone network such that said received first digit may originate from any device connected to said telephone network such as telephones, modems, and facsimile machines.
4. The method for automatically dialing a predetermined access digit or string of digits on a telephone network by an automatic dialing device as set forth in Claim 1 wherein said step of receiving a first digit further comprises controlling power modes of portions of and devices within said automatic dialing device such that upon detection of a transient voltage within said telephone network, said portions of and devices within the automatic dialing device are turned on.
5. The method for automatically dialing a predetermined access digit or string of digits on a telephone network by an automatic dialing device as set forth in Claim 1 wherein said step of decoding a digit value of said first digit further comprises disabling automatic dialing of an access digit or string of digits if said decoded digit value is equal to any other value than 1.
6. The method for automatically dialing a predetermined access digit or string of digits on a telephone network by an automatic dialing device as set forth in Claim 1 further comprising the step of controlling power modes of portions of and devices within said automatic dialing device such that upon completion of dialing said access digit or string of digits, said portions of and devices within the

automatic dialing device are turned off.

7. The method for automatically dialing a predetermined access digit or string of digits on a telephone network by an automatic dialing device as set forth in Claim 1 further comprising the step of controlling power modes of portions of and devices within said automatic dialing device such that upon reception of a subsequent second digit from said network prior to completion of the step of waiting for a predetermined digit interval time, portions of and devices within the automatic dialing device are turned off thereby aborting the step of automatically dialing the access digit or string of digits.

8. A computer-readable media containing computer code for automatically dialing a predetermined access digit or string of digits on a telephone network by an automatic dialing device, said automatic dialing device having connectivity to the telephone network and a processor capable of executing computer code, said computer code when executed by said processor causing the automatic dialing device to perform the steps of:

receiving a first digit by said automatic dialing device from a telephone network;

decoding a digit value of said first digit;

waiting for a predetermined digit interval of time for reception of a subsequently received second digit from said telephone network; and

automatically dialing onto said telephone network a predetermined access digit or string of digits if said predetermined digit interval time is elapsed prior to

reception of said the second digit, such that said access digit or string of digits is automatically dialed following completion of the first received digit and prior to reception of subsequently received digits.

9.

The computer-readable media as set forth in Claim 8 further comprising the step of measuring the duration of said first received digit and aborting said step of automatically dialing the access digit or string of digits if said measured duration exceeds a predetermined maximum time value.

10. The computer-readable media as set forth in Claim 8 wherein said computer code for receiving a first digit further comprises computer code for controlling power modes of portions of and devices within said automatic dialing device such that upon detection of a transient voltage on the telephone network, said portions of and devices within the automatic dialing device are turned on.

11. The computer-readable media as set forth in Claim 8 wherein said computer code for decoding a digit value of said first digit further comprises computer code for disabling automatic dialing of an access digit or string of digits if said decoded digit value is equal to any other value than 1.

12. The computer-readable media as set forth in Claim 8 further comprising computer code for controlling power modes of portions of and devices within said automatic dialing device such that upon completion of dialing said access digit or string of digits, said portions of and devices within the automatic dialing device are turned off.

13.

The computer-readable media as set forth in Claim 9 further comprising computer

code for controlling power modes of portions of and devices within said automatic dialing device such that portions of and devices within the automatic dialing device are turned off in response to said first digit duration measurement exceeding said predetermined maximum time value, thereby aborting dialing of the access digit or string of digits.

14. An automatic dialing device for dialing an access digit or string of digits on a telephone network comprising:

a parallel telephone connection circuit which communicatively connects the automatic dialing device to a telephone network and allows for bi-directional signal transfer between the automatic dialing device and the telephone network;

a digit detector which receives, times, and decodes digit signals received from said telephone network; and

a digit transmitter which transmits a digit signal to said telephone network in response to detection of a first digit signal having a pre-determined decoded digit value, such that said digit signal forms an access digit or string of digits which is automatically dialed.

15. The automatic dialing device as set forth in Claim 14 wherein further comprising an automatic dialer disabler which disables the automatic dialing of an access digit or string of digits in response to said received first digit signal having a duration in excess of a pre-determined maximum first digit length.

16. The automatic dialing device as set forth in Claim 14 further comprising:

an inter-digit timer which measures a pre-determined minimum amount of

time following reception of a first digit by said digit detector; and

an automatic dialer disabler which disables the automatic dialing of an access digit or string of digits in response to reception of a second digit from said telephone network prior to the completion of a pre-determined minimum inter-digit time.

17. The automatic dialing device as set forth in Claim 14 further comprising a power mode controller which places unnecessary circuits and portions of the automatic dialing device into a low-power mode following completion of dialing of an access digit or string of digits and prior to detection of a first received digit.

18. The automatic dialing device as set forth in Claim 15 further comprising a power mode controller which places unnecessary circuits and portions of the automatic dialing device into a low-power mode following disabling the automatic dialing of the access digit or string of digits.

19. The automatic dialing device as set forth in Claim 16 further comprising a power mode controller which places unnecessary circuits and portions of the automatic dialing device into a low-power mode following disabling the automatic dialing of the access digit or string of digits.

20. The automatic dialing device as set forth in Claim 14 further comprising:

a transient detector for measuring a detecting voltage transients in said telephone network, said voltage transient indicating an off-hook condition by a telephone device on said telephone network, said transient detector having a "transient detected" output signal; and

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